

APPENDIX E
FENCE SPECIFICATION

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E1.0 SCOPE

A fence shall be installed for permanent protection of the Doppler weather radar site.

E2.0 REQUIREMENTS

All fence work shall be completed in accordance with Contractor prepared and Government approved site drawings. Government approval of site drawings does not relieve the Contractor of meeting Specification requirements.

E2.1 Materials

E2.1.1 Chain-link Fencing and Accessories

Chain-link fencing and all necessary accessories shall be provided.

E2.1.1.1 Fence Fabric

The fence fabric shall be 9 gauge zinc-coated steel. The mesh size shall be 2 inches. The fence height shall be eight (8) feet. Selvage shall be knuckled at one selvage and twisted at the other.

E2.1.1.2 Gate Materials

The gate shall be a double swing type. Shape and size of the gate frame shall be consistent with shape and size to allow access to the site. All steel members shall be zinc coated. Gate fabric shall be attached to the gate frame in accordance with manufacturer's standards, except that welding of the gate fabric shall not be permitted. Padlocking latches shall be accessible from both sides of the gate, regardless of latching arrangement. Gate hinges shall be vandal proof.

E2.1.1.3 Materials for Posts, Top Rails, Bottom Rails, and Braces

Posts, top rails, bottom rails, and braces shall be zinc coated steel pipe, formed sections, or H sections. End, corner, and pull posts shall be zinc coated steel pipe or formed sections. Braces and rails shall be zinc coated steel pipe or formed sections, in sizes consistent with end, corner, and pull posts.

E2.1.1.4 Fencing Accessories

Fencing accessories shall be zinc coated steel or galvanized steel.

E2.1.2 Concrete

Concrete for fence posts shall attain a minimum compressive strength of 2500 pounds per square inch in 28 days or less, using 3/4-inch maximum-size aggregate.

E2.2 Fence Installation

Site drawings shall identify the installation requirements of the fence. The fence shall be installed on prepared surfaces to line and grade indicated on approved site drawings. Installation requirements shall include the fence manufacturer's written installation instructions. Fastening and hinge hardware shall be secured in place to fence framework by peening or welding. Allow for proper operation of components. Coat peened or welded areas with a repair coating matching original coating.

E2.2.1 Post Spacing

Line posts shall be spaced equidistantly apart, not exceeding 10 feet on center. Gate posts shall be spaced as necessary for size of gate openings. Straight runs between braced posts shall not exceed 250 feet. Corner or pull posts, with bracing in both directions, shall be used for changes in direction of 15 degrees or more, or for abrupt changes in grade.

E2.2.2 Top Rails

Top rails shall be installed before installing chain-link fabric. Pass top rail through intermediate post caps. Site drawings shall identify spacing for expansion coupling.

E2.2.3 Bottom Tension Wires

Bottom tension wires shall be installed before installing chain-link fabric, and wires shall be pulled taut. Top and bottom tension wires shall be placed within 8 inches of respective fabric line.

E2.2.4 Fence Fabric Installation

Pulled and installed fabric shall be taut and secured to top rail and bottom wire, close to both sides of each post and at maximum intervals of 24 inches on center. Fabric shall be installed so that the bottom of fabric is a maximum of two inches above ground level. Fence fabric shall be installed to provide approximately 2-inch deflection at center of the fabric span between two posts, when a force of approximately 30 pounds is applied perpendicular to the fabric. Fabric shall return to its original position when force is removed.

E2.3 Accessories Installation

E2.3.1 Post Caps

All post caps shall accommodate a top rail. Installed post caps shall be as recommended by the manufacturer.

E2.3.2 Supporting Arms

Supporting arms shall accommodate a top rail. Supporting arms shall be as recommended by manufacturer.

E2.3.3 Gates

Installed lockable swing gates shall swing through 180 degrees from closed to open.

E2.4 Grounding

E2.4.1 Gate Grounding

The gates to the post shall be bonded with a 1-inch x 1/8-inch flexible tinned copper bond strap. Gate posts shall be bonded together with a 2/0 AWG bare stranded copper cable.

E2.4.2 Overhead Power Line

Where an overhead power line crosses the fence, the fence shall be bonded with a bare No. 6 AWG copper conductor a minimum of 20 feet on each side of the crossing. The fabric shall be bonded at the bottom, middle, and top.